

REMARKS

Claims 1, 2, 4-6, 9-10, 12-24, 26-37 are pending in the application.

New Claims 36-37 have been added. No new matter has been added.

Claims 1, 2, 4-6, 9-10, 12-24, 26-35 stand improperly rejected.

Rejection under 35 U.S.C. § 102(e)

Claims 22-23 stand improperly rejected as being anticipated by Stein et al. (U.S. Patent Publication No. 2003/0008663).

Claim 22, recites, *inter alia*: “detecting signals from a target mobile appliance on the communication tether...and using a known delay attributed to the communication tether and the respective at least one repeater station to determine the location of the target mobile appliance.” Stein does not disclose using a known delay of the tether and the repeater station to determine the location of the mobile appliance, as recited in the Claim 22.

Contrary to the subject matter recited in Claim 22, Stein discloses a system 100 having a number of base stations 104, a base station controller (BSC) 120 and position determining entity (PDE) 130 that calculates the position of mobile terminals 106 using time measurements or identification codes (see paragraph [0026] of Stein). The central focus of Stein’s disclosure is attributed to using identification codes to assist in determining the location of a mobile terminal. Stein does not disclose or suggest using a

known delay attributed to the communication tether and the repeater station to determine the location of mobile appliance, as recited in Claim 22.

The Office improperly combined subject matter recited in paragraphs [0009] and [0024] of Stein to reject Claim 22. Paragraph [0009] discloses identifying repeaters by respective identification numbers in a mobile communications environment in order to determine the delay of the repeaters and adjust obtained measurements. Paragraph [0024] discloses that the repeaters 114 may be connected together or to nearby base stations 104 via a wireless or wireline link. The mere possibility that an individual repeater's measurements can be obtained by referencing its individual identification number (disclosed in paragraph [0009] of Stein), and some repeaters may include a wireline link (disclosed in paragraph [0024] of Stein) does not anticipate the subject matter recited in Claim 22.

Stein's disclosure of a wireline link (optical or coaxial) between repeaters and base stations is not described in any context that could possibly support the anticipation of Claim 22, which requires the use of a known delay attribute to the communication tether and the repeater station to determine the location of a mobile appliance. The wireline link disclosed in Stein is a mere design consideration and plays no role in the location process used by Stein. Stein discloses a GPS satellite location technique, time of arrival (TOA) location, and a hybrid scheme that uses both GPS and TOA. Nowhere

does Stein recite that a **known delay attributed to the communication tether** is used to determine the location of the mobile appliance, as recited in Claim 22.

The Office has not met the burden of anticipation required by 35 U.S.C. §102 in applying reference Stein to the subject matter recited in Claim 22. Therefore, the rejection of Claim 22 is improper and must be withdrawn. Likewise the rejection of Claim 23 which depends from Claim 22 is also improper irrespective of the additional patentable features recited therein.

Rejection under 35 U.S.C. § 103(a)

Claim 1-10 are rejected as being unpatentable over Stein et al. (U.S. Patent Application No. 2003/0008663) in view of Kennedy Jr. (U.S. Patent No. 6,952,158). Claims 12, 14-17, 24 and 26-29 are improperly rejected as being unpatentable over Stein et al. (U.S. Patent Application No. 2003/0008663) in view of Kennedy et al. (U.S. Patent Application No. 2004/0043775). Claims 13 and 18-21 are rejected as being unpatentable over Stein et al. (U.S. Patent No. 2003/0008663) in view of Kennedy et al. (U.S. Patent Application No. 2004/0043775) and further in view of Tekinay (U.S. Patent Publication No. 2001/0027110). Claims 30-33 are rejected as being unpatentable over Stein et al. (U.S. Patent No. 2003/0008663) in view of Kennedy et al. (U.S. Patent Application No. 2004/0043775) and further in view of Hymel (U.S. Patent No. 6,246,336). Claim 34 is improperly rejected as being unpatentable over Stein et al. (U.S. Patent Publication No.

2003/0008663) in view of Bloebaum (U.S. Pat. No. 6,188,351). Claim 35 is rejected as being unpatentable over Stein et al. (U.S. Patent Publication No. 2003/0008663) in view of Bloebaum (U.S. Pat. No. 6,188,351) and further in view of in view of Kennedy et al. (U.S. Patent Application No. 2004/0043775).

Regarding Claim 1, Contrary to the Office's position, paragraphs [0007-0009] do not disclose "determining if one of the plural signals has passed through the first repeater is based in part on a difference between the times of arrival of two of the plural signals at the geolocation system", as recited in Claim 1.

FIG. 1A of Stein illustrates a repeater 114a transmitting a signal to mobile station 106. Paragraph [0009] of Stein discloses using an identification code to identify a specific repeater through which a signal was received for the purposes of adjusting measurements based on the delay of the repeater. Nowhere does Stein disclose "determining if one of the plural signals has passed through the first repeater is based in part on a difference between the times of arrival of two of the plural signals at the geolocation system", as recited in Claim 1.

Paragraphs [0102-0104] of Stein disclose a GPS position determination system that communicates search signals with a controller 630. A PDE ultimately determines the position of the mobile stations located in the vicinity of the communications network. PN codes are used to represent the measurement and identifiers of the base stations and

repeaters. The Stein disclosure attributes a repeater's delays to an identification code that represents the repeater's unique characteristics. The repeater is characterized by Stein as a network component having an identification code that is used to conveniently take the repeater's added system delays into consideration for purposes of determining mobile station location.

In contrast to the teachings of Stein, the subject matter recited in Claim 1 requires a determination be made as to whether one or plural signals has passed through a first repeater. The Office has not met the burden of obviousness required by 35 U.S.C. §103 in applying reference Stein to the subject matter recited in Claim 1. Further, Kennedy also fails to teach the above noted deficiencies of Stein with respect to Claim 1.

All of the Claim elements of Claim 1 have not been taught by Stein or by Kennedy. Therefore, the rejection of Claim 1 is improper and must be withdrawn. Likewise the rejection of Claims 2-10 which depend from Claim 1 are also improper irrespective of the additional patentable features recited therein.

Regarding Claim 12, the Office has incorrectly relied on the Stein disclosure to teach certain feature recited in Claim 12. For instance, contrary to the Office's position, Stein does not disclose: "...the geolocation sensors monitor the tether between the at least one repeater and an antenna feed interface for the mobile appliance's signal", as recited in Claim 12. As relied upon by the Office, paragraph [0024] does not disclose a tether

being monitored. The mere possibility that a coaxial or fiber optic cable may be used to connect repeaters and/or base stations together does not suggest that the coaxial or fiber optic cable is monitored for any purpose. Moreover, the mere existence of the coaxial or fiber optic cable certainly cannot be equated to: “the geolocation sensors monitor the tether between the at least one repeater and an antenna feed interface for the mobile appliance’s signal”, as recited in Claim 12.

All of the Claim elements of Claim 12 have not been taught by Stein or by Kennedy. Therefore, the rejection of Claim 12 is improper and must be withdrawn. Likewise the rejection of Claims 14-16 which depend from Claim 1 are also improper irrespective of the additional patentable features recited therein.

Regarding Claim 26, the Office has incorrectly relied on the Stein disclosure to teach certain feature recited in Claim 12. For instance, contrary to the Office’s position, Stein does not disclose: “...relaying from the at least one repeater station information regarding the channel of the mobile appliance’s signal to a geolocation system and using the information to detect the mobile appliance’s signal and calculate the mobile appliance’s location”, as recited in Claim 26. As relied upon by the Office, paragraphs[0024 and 0116] do not disclose relaying from the repeater station information regarding the channel of the mobile appliance’s signal. The identification code is

explicitly described in paragraph [0116] of Stein as being used for repeater identification and has nothing to do with the mobile station.

All of the Claim elements of Claim 26 have not been taught by Stein or by Kennedy. Therefore, the rejection of Claim 26 is improper and must be withdrawn. Likewise the rejection of Claims 27-29 which depend from Claim 26 are also improper irrespective of the additional patentable features recited therein.

Regarding Claim 13, the Office has incorrectly relied on the Stein disclosure to teach certain feature recited in Claim 13. For instance, contrary to the Office's position, Stein does not disclose: "...determining if a target mobile appliance is served by the at least one repeater; and, adjusting the time of arrival of the mobile appliances signal based on the determination if the mobile appliance is being served by the one of the at least one repeaters", as recited in Claim 13.

As relied upon by the Office, paragraphs [0026-0028, 0035, 0039-0040, and 0047] do not adjusting the time of arrival of the mobile appliances signal based on the determination if the mobile appliance is being served by the one of the at least one repeaters", as recited in Claim 13. Quite simply, Stein does not disclose this feature of Claim 13. Whether or not a repeater is used in the communication system of Stein has no bearing as to whether the time or arrival of the mobile appliances signal is adjusted.

All of the Claim elements of Claim 13 have not been taught by Stein, Kennedy or by Tekinay. Therefore, the rejection of Claim 13 is improper and must be withdrawn. Likewise the rejection of Claims 17-21 which depend from Claim 13 are also improper irrespective of the additional patentable features recited therein.

Regarding Claim 30, the Office has incorrectly relied on the combination of the Stein, Kennedy and Hymel disclosures to teach certain feature recited in Claim 30. For instance, contrary to the Office's position, Hymel does not disclose: "...disregarding a second signal received from the mobile appliance at each of the plural base stations when determining the location of the mobile appliance", as recited in Claim 30.

As relied upon by the Office, reference Hymel has nothing to do with geolocation. The second signal disregarded in operation 416 of FIG. 5 of Hymel is directed to a radio signals used to transmit advertisement related messages. Nowhere does Hymel disclose using geolocation techniques. Furthermore, Stein and Kennedy also do not disclose this feature of Claim 30.

All of the Claim elements of Claim 30 have not been taught by Stein, Kennedy or by Hymel. Therefore, the rejection of Claim 30 is improper and must be withdrawn. Likewise the rejection of Claims 31-33 which depend from Claim 30 are also improper irrespective of the additional patentable features recited therein.

Regarding Claim 34, the Office has incorrectly relied on the combination of Stein and Bloebaum to teach certain features recited in Claim 34. For instance, contrary to the Office's position, neither Stein nor Bloebaum disclose: "...a geolocation sensor attached to the communication tether between said base station and said repeater station", as recited in Claim 34.

All of the Claim elements of Claim 34 have not been taught by Stein or Bloebaum. Therefore, the rejection of Claim 34 is improper and must be withdrawn.

Regarding Claim 35, the Office has incorrectly relied on the combination of Stein, Bloebaum and Kennedy to teach certain features recited in Claim 35. For instance, contrary to the Office's position, none of those references disclose: "...said tether is connected to said base station at an antenna feed interface, and said geolocation sensor is located on said tether prior to said interface", as recited in Claim 35.

The Office has improperly relied on FIG. 1a of Bloebaum to teach a geolocation sensor located on a tether prior to said interface. BTS₃ is coupled to a GPS receiver via one link and a BSC via another link neither of said links could be equated to: "a geolocation sensor is located on said tether prior to said interface", as recited in Claim 35.

The Office has completely ignored this and other claimed feature of Claim 35.

All of the Claim elements of Claim 35 have not been taught by Stein, Bloebaum or Kennedy. Therefore, the rejection of Claim 35 is improper and must be withdrawn.

Incorporating the comments above, it is also clear that all of the claim elements of new Claims 36-37 are not taught by the cited art of record. Consideration and allowance of Claims 36-37 are hereby respectfully solicited.

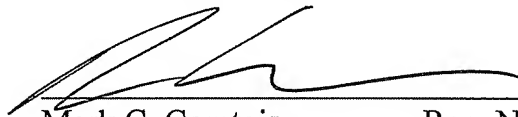
CONCLUSION

The prior art alone or in combination do not disclose the features of the Claims.
The Applicant request allowance of the application including Claims 1, 2, 4-6, 9-10, 12-24 and 26-37.

If the Examiner has any questions relating to this response or the application in general she is respectfully requested to contact the undersigned so that prosecution may be expedited.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to **Deposit Account No. 04-1679**.

Respectfully submitted,



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Date: December 31, 2007